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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,921	10/11/2005	Hiroshi Nakamoto	28951-5405	6926

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STEPTOE & JOHNSON LLP  
1330 CONNECTICUT AVENUE, N.W.  
WASHINGTON, DC 20036

EXAMINER
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CARTER, WILLIAM JOSEPH

ART UNIT	PAPER NUMBER
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2875

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/22/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/552,921

Applicant(s)

NAKAMOTO ET AL.

Examiner

William J. Carter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 9/20/06.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 5, 7, and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Hsiung et al. (6,876,313).

With respect to claim 1, Hsiung teaches an illumination apparatus for an operating section (Fig. 1), comprising an operation part (21) provided on a panel (11) of an electronic equipment (10) and an operation knob (24) attached to the operation part (Fig. 2) so that light from a built-in light emission source (22) illuminated a rear surface of the operation knob (Fig. 2), wherein the apparatus further comprises: a light emission source (22) located above (in the present application, the term "above" is not clearly defined, and through the figures "above" is interpreted to mean above vertically if the knob was attached to a wall, this is because if the knob was laid flat then the light emission source (7) is not "above" the bearing section (1D) of the present application unless it is interpreted in this manner) a bearing section (231) of an operation knob (24); and a light guide piece (23) located in a concave (111) between the operation knob (24)

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and the panel (11) to diffusively transmit light from the light emission source to illuminated the rear surface of the operation knob (Fig. 2).

As for claim 2, Hsiung teaches at least one of a shaft section (211) of the operation part (21) and a bearing section (231) of the operation knob (24) fitted around the shaft section (Fig. 2) is a transparent material (column 2, lines 26-27).

As for claim 5, Hsiung teaches a light receiving surface (bottom of 23) of the light guiding piece (23) for receiving the light from the light emission source (22) faces an interior of the operation knob (Fig. 2), and an emission surface (top of 23) for emitting the light diffusively passing through the light guiding piece to front of the light guiding piece is located around the outer peripheral section (Fig. 2) of the operation knob (24).

As for claim 7, Hsiung teaches a concave is formed in the panel surface (11) to which the operation part (21) is attached (Figs. 1 and 2), and the light guiding piece (23) is placed in the concave (Fig. 2).

As for claim 9, Hsiung teaches the operation knob (24) is an operation button (column 1, lines 18-22).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsiung in view of Weber et al. (6,092,902).

With respect to claims 4 and 6, Hsiung teaches all of the claimed elements, as discussed above, as well as teaching an outer peripheral section (top of 23) of a front surface (top of 23) of the light guiding piece (23) is a matted emission surface (top of 23). Hsiung does not explicitly teach at least one of an internal wall surface of the operation knob and a panel surface at the rear surface of the light guiding pieces is a reflection surface and a part of the light guiding piece is a reflection surface. Weber, also drawn to illuminated knobs, teaches at least one of an internal wall surface (17) of the operation knob (1) is reflective (column 3, lines 47-53) and a part of a light guiding piece is a reflection surface (Abstract). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to use the reflective wall surface and reflective coating of Weber on the rear surface of the light guiding piece of Hsiung, in order to protect the light guiding piece (Abstract).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hsiung in view of Bauer et al. (4,800,466).

With respect to claim 8, Hsiung teaches all of the claimed elements, as discussed above, except for explicitly teaching a through-hole is formed in the operation knob so that the transmitted or diffused light is emitted through the through-hole. Bauer, also drawn to illuminated knobs, teaches a through-hole (21) is formed in an operation knob (3) so that the transmitted or diffused light is emitted through the through-hole (Fig. 3). It would have been obvious to one of ordinary skill in the art, at the time of the

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invention, to use the through-hole of Bauer in the knob of Hsiung, in order to make the knob illuminated and visible (column 4, lines 6-10).

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hsiung and Bauer as applied to claim 8 above, and further in view of Weber.

With respect to claim 3, Hsiung and Bauer teach all of the claimed elements, as discussed above, as well as Bauer teaches a light emission source (8) provided inside a bearing section (6) of the operation knob (3). Hsiung and Bauer do not explicitly teach a shaft section of the operation part is a transparent material. Weber teaches a shaft section (D1) of an operation part (2) is a transparent material (column 3, lines 23-35). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to use the transparent material of Weber in the shaft of Hsiung, in order to have the shaft act as a light guide (column 3, lines 23-25).

### ***Response to Arguments***

Applicant's arguments filed 20 November 2006 have been fully considered but they are not persuasive. As indicated above, Hsiung does teaches "a concave" (111) which can be seen in Figs. 1 and 2. Also the combination of Hsiung with Weber and Bauer are each obvious with motivation from each reference explicitly cited.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Carter whose telephone number is (571)272-0959. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra L. O'Shea can be reached on (571)272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

wjc  
02/15/07



ALI ALAVI  
PRIMARY EXAMINER